UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
OSB1997-0761

July 16, 1997

Fred Patron
U. S. Department of Transportation
Federal Highway Administration
The Equitable Center, Suite 100
530 Center Street NE
Salem, Oregon 97301

RE: Conference Opinion for Oregon Department of Transportation - Skalada Bridge Project

Dear Mr. Patron:

Attached is the National Marine Fisheries Service's (NMFS) Endangered Species Act (ESA) section 7 conference opinion (Opinion) for proposed Skalada Bridge repair project. This project will occur in the Skalada Creek watershed, which is in the Siletz River basin.

Oregon Coast steelhead (*Oncorhynchus mykiss*) were proposed as threatened under the Endangered Species Act (ESA) by the National Marine Fisheries Service (NMFS) (61 FR 41541, 9 August 1996). Oregon Coast coho salmon were proposed to be listed as threatened under the ESA (July 25, 1995, 60 FR 38011). Subsequent consideration of Federal and state conservation measures have resulted in a determination that a threatened listing of Oregon Coast coho salmon is not now warranted (May 6, 1997, 62 FR 24588). Oregon Coast coho salmon are currently considered to be candidates for ESA listing. This determination is subject to review within three years.

Conferencing with the NMFS on projects affecting this candidate species is one of the Federal conservation measures upon which the NMFS based its decision not to list the Oregon Coast coho salmon as threatened. Thus, for the purpose of this conference, the NMFS has provided an effects analysis and has recommended measures to avoid or minimize adverse effects as if the species were listed as threatened.

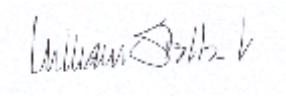
The Skalada Bridge project has been determined by the Federal Highway Administration and the Oregon Department of Transportation as "likely to adversely affect" and determined by the NMFS as not likely to jeopardize the continued existence of Oregon Coast coho salmon and Oregon Coast steelhead. The effect determination was made by evaluating the environmental baseline (current aquatic habitat conditions) and predicting effects of actions on that baseline (see enclosed Opinion).

Although the NMFS expects some adverse effects to the environmental baseline from the action, the effects are expected to be minor. This is because (1) project design features such as erosion control measures substantially diminish short-term adverse effects to anadromous salmonids, and (2) the NMFS has made conservation recommendations such as revegetation that are expected to reduce longer-term adverse effects.

Should Oregon Coast coho salmon or Oregon Coast steelhead become listed under the ESA, or should critical habitat be designated, the NMFS expects the attached conference opinion to serve as the basis for a biological opinion on implementation of the action, pursuant to 50 CFR § 402.10(d). Since the ESA does not have a prohibition against take of proposed or candidate species, an Incidental Take Statement is not issued with the attached Opinion.

If you have any specific questions please contact Garwin Yip at (503) 230-5431 or Steve Morris at (503) 231-2224.

Sincerely,



William Stelle, Jr.
Regional Administrator

enclosures

Conference Opinion: Skalada Bridge Project
Attachment 1: Biological requirements and status under 1996 environmental baseline: Oregon Coast coho salmon and Oregon Coast steelhead, May 1997
Attachment 2: Application of Endangered Species Act standards to Oregon Coast coho salmon and Oregon Coast steelhead, May 1997

cc: Elton Chang, Federal Highway Administration
Pieter Dykman, Oregon Department of Transportation
Nicholas Testa, Oregon Department of Transportation
Rose Owens, Oregon Department of Transportation
Alan Lively, Oregon Department of Transportation

Endangered Species Act - Section 7 Conference

CONFERENCE OPINION

Oregon Department of Transportation - Skalada Bridge Project

Agency: Oregon Department of Transportation for the Federal Highway Administration

Conference Conducted By: National Marine Fisheries Service Northwest Region

Date Issued: July 16, 1997

Refer to: OSB1997-0761

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I. Introduction and Background

The objective of this conference is to determine whether the Skalada Bridge Project, undertaken by the Oregon Department of Transportation (ODOT)and funded by the Federal Highway Administration (FHWA), is likely to jeopardize the continued existence of Oregon Coast (OC) steelhead or Oregon Coast (OC) coho salmon or result in the destruction or adverse modification of critical habitat. A description of the proposed action is provided in Section II of this document.

The OC steelhead (*Oncorhynchus mykiss*) Evolutionarily Significant Unit (ESU)[1] was proposed as threatened under the Endangered Species Act (ESA) (61 FR 41541, 9 August 1996). The OC coho salmon ESU (*Oncorhynchus kisutch*) was proposed to be listed as threatened under the ESA by the National Marine Fisheries Service (NMFS) (July 25, 1995, 60 FR 38011). Subsequent consideration of Federal and state conservation measures have resulted in a determination that a threatened listing of the ESU is not now warranted (May 6, 1997, 62 FR 24588). OC coho salmon are currently considered to be candidates for ESA listing. This determination is subject to review within three years.

Conferencing with the NMFS on projects affecting this candidate species is one of the Federal conservation measures upon which the NMFS based its decision not to list the OC coho salmon as threatened. Thus, for the purpose of this conference, the NMFS has provided an effects analysis and has recommended measures to avoid or minimize adverse effects as if the ESU were listed as threatened.

The proposed action has been determined as likely to adversely affect OC steelhead and OC coho salmon. The NMFS expects this action to adversely affect the environmental baseline. However, project design, timing, and expected mitigation reduce these effects substantially enough to avoid jeopardizing the continued existence of OC steelhead or OC coho salmon. Because critical habitat has not been proposed or designated, this conference does not address destruction or adverse modification of critical habitat. Should OC steelhead

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1. For purposes of conservation under the Endangered Species Act, an Evolutionarily Significant Unit is a distinct population segment that is substantially reproductively isolated from other conspecific population units and represents an important component in the evolutionary legacy of the species (Waples 1991).

or OC coho salmon be listed under the ESA, or should critical habitat be designated, the NMFS expects this Conference Opinion (Opinion) to serve as the basis for a biological opinion on implementation of this action, pursuant to 50 C.F.R. § 402.10(d).

A Biological Assessment (BA) describing the effects of the proposed actions was submitted to NMFS on April 8, 1997. An addendum to this BA was received on May 21, 1997. Formal conferencing on the proposed action will be concluded with the issuance of this Opinion.

The NMFS, in collaboration with other Federal agencies[2], has prepared guidance for determining the effects of human activities on anadromous fish species of concern (NMFS 1996). This guidance is based on a "Matrix of Pathways and Indicators" (Matrix), which is a simple yet holistic method of characterizing environmental baseline conditions and predicting the effects of human activities on those baseline conditions. The Matrix provides generalized ranges of functional values (i.e., properly functioning, at risk, and not properly functioning) for aquatic, riparian, and watershed parameters.

The NMFS acknowledges that the generalized values provided in the Matrix may not be appropriate for all watersheds within the range of anadromous salmonids. Development of more biologically appropriate matrices in specific physiographic areas is encouraged. The NMFS, in conjunction with the Oregon Department of Fish and Wildlife (ODFW) and Federal land management agencies, is in the process of appropriately modifying the Matrix for the Oregon Coast Range Province (this includes the proposed project area). For the purpose of this conference, the existing Oregon Coast Range Province interim Matrix (dated June 14, 1996) was used to analyze the proposed action. This interim Matrix is included in Attachment 1 to this conference.

2. The other collaborating Federal agencies are the U. S. Forest Service, the Bureau of Land Management, and the U. S. Fish and Wildlife Service.

II. Proposed Action

The FHWA proposes to fund the ODOT for the Skalada Bridge Project, at the confluence of Skalada Creek and the Siletz River within the Siletz River basin. This project is being undertaken because rot and water damage threatened the old wood structure, which has been removed. A replacement bridge is currently being constructed immediately upstream of the old bridge location. Both the old wood bridge and new concrete bridge are two-laned and span the creek. There will be no in-water piers. Fill material and riprap may be placed within the riparian corridor of the creek to prevent hydraulic scour. Minimal disturbance of riparian vegetation (less than 50 square meters) is expected due to project activities.

The ODOT will also repair a weather-related slide approximately 400 feet south of the bridge replacement project. There is no running water at this site, nor is any expected during repair activities. The failed slope will be stabilized with non-erodible materials such as rock.

Design features incorporated by the ODOT to reduce adverse effects to anadromous fish include:

- erosion control measures such as silt fences and straw bale barriers;

- continual on-site monitoring of these erosion control devices by an ODFW biologist;

- minimal (less than 50 square meters) disturbance of existing upland and riparian vegetation; and

- no in-water work is necessary for the proposed projects (June 30, 1997, personal communication between Nicholas Testa, ODOT, and Garwin Yip, NMFS).

III. Biological Information and Critical Habitat

The listing status and biological information for both OC steelhead and OC coho salmon is described in Attachment 1. While critical habitat has not been proposed or designated, Attachment 1 describes potential critical habitat elements for OC steelhead and OC coho salmon.

IV. Evaluating the Proposed Action

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA, and defined in the implementing regulations (50 C.F.R. § 402). The method used by the NMFS to apply ESA jeopardy standards is described in a document titled "Application of Endangered Species Act standards to Oregon Coast coho salmon and Oregon Coast steelhead, May 1997" (Attachment 2). Neither OC steelhead nor OC coho salmon are currently listed and therefore there is no designated critical habitat. If critical habitat is proposed or designated, consultation would be reinitiated to determine if there will be destruction or adverse modification of critical habitat.

As described in Attachment 2, the first steps in applying the ESA jeopardy standards are to define the species' biological requirements and to describe the species' current status as reflected by the environmental baseline. In the next steps, the NMFS' jeopardy analysis considers how proposed actions are expected to directly and indirectly affect specific environmental factors that define properly functioning aquatic habitat essential for the survival and recovery of the species. This analysis is set within the dual context of the species' biological requirements and the existing conditions under the environmental baseline (defined in Attachment 1). The analysis takes into consideration the offsetting effects of beneficial and detrimental activities taking place within the action area. If the NMFS finds that the Federal actions are likely to jeopardize the listed species then the NMFS must identify any reasonable and prudent alternatives to the proposed action.

A. Biological Requirements. For this conference, the NMFS finds that the biological requirements of OC steelhead and OC coho salmon are best expressed in terms of environmental factors that define properly functioning freshwater aquatic habitat necessary for survival and recovery of the species. Individual environmental factors include water quality, habitat access, physical habitat elements, channel condition, and hydrology. Properly functioning watersheds, in which all of the individual factors operate together to provide healthy aquatic ecosystems, are also necessary for the survival and recovery of OC steelhead and OC coho salmon. This information is summarized in Attachment 1.

B. Environmental Baseline.

1. Current range-wide status of the species under the environmental baseline. The OC steelhead ESU is not presently in danger of extinction. The NMFS is now considering whether it is likely to become endangered in the foreseeable future (Busby *et al*. 1996). The OC coho salmon ESU may be at risk of extinction in the foreseeable future if present conditions continue (and that proposed harvest and hatchery reforms are not implemented (NMFS 1997, Weitkamp *et al*. 1995). In the absence of adequate population data, habitat condition provides a means of evaluating the status of these species for the environmental baseline assessment.

2. Action Area. The “action area” is defined as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 C.F.R. § 402.02). Thus, the "action area" for this conference includes areas downstream of the project area as well as the immediate project area itself.

3. Current status of the species under the environmental baseline within the action area. Environmental baseline conditions within the action area were evaluated at the site and basin scale. This evaluation was based on the Oregon Coast Province interim Matrix (see Attachment 1). This method assesses the current condition of instream, riparian, and watershed factors that collectively provide properly functioning aquatic habitat essential for the survival and recovery of the species.

The Siletz River basin may be characterized as bordering between “at risk” and “not functioning” (USDA-FS 1996). Steelhead and coho salmon populations within the basin are depressed (Buckman

and Reeve 1996). Environmental conditions of Skalada Creek may be characterized as “at risk” (FHWA and ODOT 1997).

Based on the best information available on the current status of the species (Attachment 1) and the NMFS' assumptions given the information available regarding (1) population status, population trends, and genetics (page 3 of Attachment 2) and (2) the environmental baseline conditions within the action area, the NMFS concludes that the biological requirements of OC steelhead and OC coho salmon are currently not being met under the environmental baseline within the action area. Significant improvement in habitat conditions is needed to meet the biological requirements for survival and recovery of these species. Actions that do not maintain or restore properly functioning aquatic habitat conditions would be likely to jeopardize the continued existence of OC steelhead and OC coho salmon due to the high level of risk the species presently face under the degraded environmental baseline.

V. Analysis of Effects

A. Effects of Proposed Actions. The effect determination for the proposed project was made using NMFS (1996) to evaluate the environmental baseline (current aquatic conditions) and to predict any effects of the action on that baseline. The effects of the action are expressed in terms of the expected effect (restore, maintain, or degrade) on each of the aquatic habitat factors in the project area, as described in the "Checklist for documenting environmental baseline and effects of the action" (Checklist) completed for the action (ODOT 1997). The results of the Checklist for this action provide a basis for determining the overall effect on the environmental baseline in the project area.

The action is expected to maintain most of the aquatic habitat factors within the Skalada Creek watershed. Potential adverse effects of the project and any mitigating factors are discussed below.

1. A short-term increase in turbidity may be expected due to construction and slide repair activities and vegetation removal. The ODOT will take measures to control erosion, as described above. The NMFS recommends plantings to mitigate for vegetation removal (see Section VII, Conservation Recommendations).

2. “In many coastal streams, human activities have simplified or otherwise modified ... interconnection with the floodplain to the detriment of salmonids (State of Oregon 1997).” Placement of fill and riprap to protect bridge footings may decrease floodplain connectivity. This unavoidable decrease in connectivity may be mitigated by planting of vegetation and is also addressed in Section VII, Conservation Recommendations.

3. In-water work may harass rearing juvenile fish. Strict observation of the ODFW in-water work window will avoid adverse effects to adult fish and may reduce potential for harassment of juvenile fish.

4. Machinery fuel or other fluids and construction materials may enter the water. The ODOT will remove external oil and grease from equipment to be used for in-stream work, and the contractor will develop a site-specific Spill Prevention and Countermeasure Plan.

B. Cumulative Effects. "Cumulative effects" are defined as those effects of "future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation" (50 C.F.R. § 402.02).

Currently, the upper Skalada Creek watershed is utilized for timber production and is predominately a mix of second growth and young timber. The lower watershed is a forested community with no evidence of agricultural activities, in contrast to the Siletz River bottom lands, which are used for such activities (June 2, 1997, personal communication, between Nicholas Testa, ODOT, and Joanne Wu, NMFS).

Significant improvement in the reproductive success of OC steelhead or OC coho salmon is unlikely without changes in agricultural, forestry, and other practices affecting riparian areas. The NMFS is not aware of any future changes to existing State and private activities within the action area that would cause greater impacts to these species than presently occurs.

VI. Conclusion

The Skalada Bridge Project, as described in the BA and BA Addendum (FHWA and ODOT 1997a, 1997b), is not likely to jeopardize the continued existence of OC steelhead or OC coho salmon. The NMFS used the best available scientific and commercial data to apply its jeopardy analysis (Attachment 2) when analyzing the effects, including cumulative effects, of the proposed action on the biological requirements of the species relative to the environmental baseline.

In reaching this conclusion, the NMFS has determined that the likelihood of survival and recovery of OC steelhead and OC coho salmon can be increased by providing sufficient prespawning survival, egg-to-smolt survival, and upstream/downstream migration survival rates through the protection of and restoration to properly functioning freshwater habitat within the Siletz River basin. The ODOT applied the NMFS' evaluation methodology (NMFS 1996) to the proposed action and found that the proposed action would cause degradation to some essential habitat elements. Project design features such as erosion control measures and preparation of a site-specific Spill Prevention and Countermeasure Plan substantially diminish short-term adverse effects to anadromous salmonids. Suggested mitigation measures discussed in Section VII, Conservation Recommendations, are likely to reduce longer-term adverse effects.

VII. Conservation Recommendations

Section 7 (a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Conservation recommendations are discretionary measures suggested to minimize or avoid adverse effects of a proposed action on

listed species, to minimize or avoid adverse modification of critical habitat, or to develop additional information.

The ODOT has taken some measures to minimize and mitigate the effects of the proposed project (see section II, Proposed Action). The following conservation recommendations are designed to assist the ODOT in minimizing and mitigating effects to anadromous salmonids:

1. Should monitoring indicate that excessive sediment is delivered to waterways (e. g., a 10% or greater increase in turbidity), the ODOT shall notify the NMFS. The NMFS may request reinitiation of this conference.

2. Prior to beginning construction activities, the ODOT shall meet with the contractor to review the aspects of project design that affect anadromous salmonids.

3. In the OCSRI (State of Oregon 1997), the ODOT committed to "ensure minimization of impacts to riparian areas, and will provide mitigation on a 1.5:1 replacement/impact ratio of any unavoidable loss (page 17B-14)." The ODOT shall plant, using native tree species, an area at least 1.5 times the area of unavoidably disturbed vegetation. The NMFS suggests that coniferous tree species be planted. However, the NMFS recognizes that such species may pose a hazard to the bridge structure. In this event, the NMFS suggests that planting occur on the Siletz River in areas that could be improved by such plantings.

4. The ODOT has also committed to "evaluate and modify road and bridge designs ... to ensure the existing channel morphology is maintained [or], where feasible ... improved (State of Oregon 1997)." The NMFS recommends that the ODOT plant willow shoots or other native vegetation in the fill and riprap to be installed in Skalada Creek. Since the area to be altered is relatively small (i.e., limited to the area immediately around bridge footings), such plantings may ameliorate bank hardening and subsequent increased removal of the stream from its floodplain.

VIII.Reinitiation of Conference

Reinitiation of this conference is required: (1) if any action is modified in a way that causes an effect on the species that was not previously considered in the BA and in this Opinion; (2) new information or project monitoring reveals effects of the action that may affect the species in a way not previously considered; or (3) a new species is listed or critical habitat is designated that may be affected by the action (50 C.F.R. 402.16).
For example, the analysis included in this conference has been conducted at the project or site level. Future watershed or basin analyses may indicate that the existing environmental baseline is substantially different than indicated by this analysis. Reinitiation of this conference would be required for ongoing or continuing activities for which the environmental baseline is substantially different than originally assessed.

IX. References

Section 7(a)(2) of the ESA requires biological and conference opinions to be based on "the best scientific and commercial data available." This section identifies the information used in developing this Opinion in addition to the BA and additional information requested by the NMFS and provided by the ODOT.

Buckman, B., and R. Reeve. 1996. Fish management review stock status Lincoln District. Oregon Department of Fish and Wildlife, Fish Division, Portland, Oregon. ***In:*** Johansen, J., C. Bickford, B. Ellis, D. Johnson, B. Miller, D. Mummey, and W. Patterson. 1996. Drift (Siletz) Watershed Analysis. Siuslaw National Forest, Hebo Ranger District. 31525 Highway 22, Hebo, Oregon 97122. September 6.

Busby, P.J., T.C. Wainwright, G.J. Bryant, L.J. Lierheimer, R.S. Waples, F.W. Waknitz, and I.V. Lagomarsino. 1996. Status review of west coast steelhead from Washington, Idaho, Oregon, and California. U.S. Dep. Commer., NOAA Tech. Memo.
NMFS-NWFSC-27. 261 pages

Federal Highway Administration (FHWA) and Oregon Department of Transportation (ODOT). 1997a. Programmatic Biological

assessment for ongoing and proposed actions (through December 31, 1997) by the ODOT that may affect Oregon Coast coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Oncorhynchus mykiss*) in the mid-coast drainage basin.

Federal Highway Administration (FHWA) and Oregon Department of Transportation (ODOT). 1997b. Biological assessment addendum.

National Marine Fisheries Service (NMFS). 1996. Making ESA determinations of effect for individual or grouped actions at the watershed scale. NMFS, Environmental and Technical Services Division, Habitat Conservation Branch, 525 NE Oregon Street, Portland, Oregon. 28 pages.

National Marine Fisheries Service (NMFS). 1997. April 3, 1997, memorandum, from Michael Schiewe (NMFS), to William Stelle (NMFS) and William Hogarth (NMFS), and attached March 28, 1997, document, "Status review update for coho salmon from the Oregon and Northern California coasts."

State of Oregon. Oregon Coastal Salmon Restoration Initiative (OCSRI) Conservation Plan. 1997. Volumes I-III. March 10.

United States Department of Agriculture - Forest Service (USDA-FS), Siuslaw National Forest. 1996. Biological Assessment for ongoing (through May 31, 1998) and proposed actions that may affect Oregon Coast coho salmon, and Oregon Coast steelhead within the Oregon Coast Range Province. Corvallis, Oregon. November 6.

Waples, R.S. 1991. Definition of "species" under the endangered Species Act: application to Pacific salmon. NOAA Technical Memorandum NMFS F/NWC-194, Northwest Fisheries Center, Seattle, Washington. 29 pages.

Weitkamp, L.A., T.C. Wainwright, G.J. Bryant, G.B. Milner, D.J. Teel, R.G. Kope, and R.S. Waples. 1995. Status review of coho salmon from Washington, Oregon and California. NOAA Technical Memorandum NMFS-NWFSC-24, Northwest Fisheries Science Center, Seattle, Washington. 258 pages.